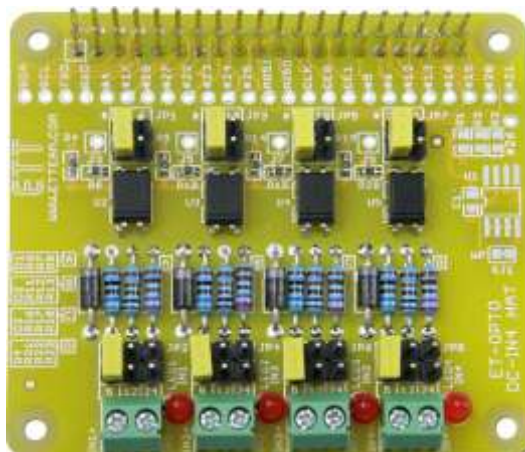


## ET-OPTO DC-IN4 HAT

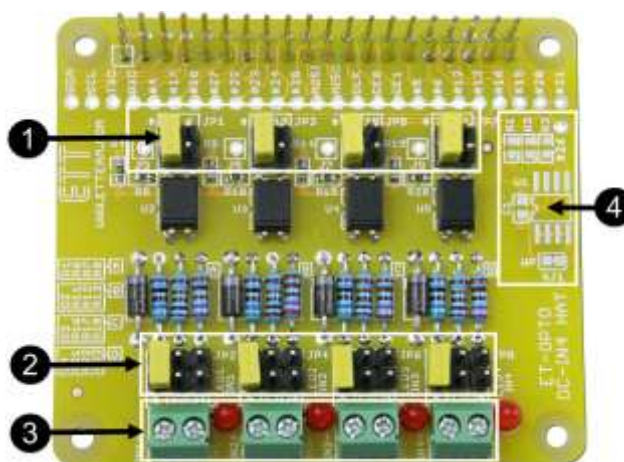


**ET-OPTO DC-IN4 HAT** is Board OPTO-ISOLATE INPUT 4-CH that converts Signal INPUT as Direct Current type (5VDC, 12VDC and 24VDC) to Signal Logic "0" or Logic "1" as required. It is applied to detect operation of Sensor devices or Contact Switches.

### Specifications of Board ET-OPTO DC-IN4 HAT

- Be compatible with Board Raspberry Pi Model A+, Raspberry Pi Model B+, Raspberry Pi 2 Model B
- Have connectible area of Circuit ID-EEPROM (OPTION)
- Isolate the operation of circuit by OPTO-ISOLATION
- Have 3 alternative INPUT VOLTAGE Levels; 5VDC, 12VDC, and 24VDC
- Use Connector as long leg type, it piles boards up as required.
- PCB Size: 6.5 x 5.6 cm.

### Composition of Board ET-OPTO DC-IN4 HAT



- **No.1** This Jumper (JP1,JP3,JP5,JP7) chooses PIN GPIO that is connected with Circuit. It becomes Logic "0" when there is INPUT VOLTAGE; but, it becomes Logic "1" instead when there is no any INPUT VOLTAGE.
- **No.2** This Jumper (JP2,JP4,JP6,JP8) chooses 3 alternative INPUT VOLTAGE levels that are 5VDC, 12VDC, and 24VDC.
- **No.3** It is Connector INPUT VOLTAGE.
- **No.4** It is connectible area of Circuit ID EEPROM (OPTION).

### How to connect Board ET-OPTO DC-IN4 HAT



### Example program is written by Python Language

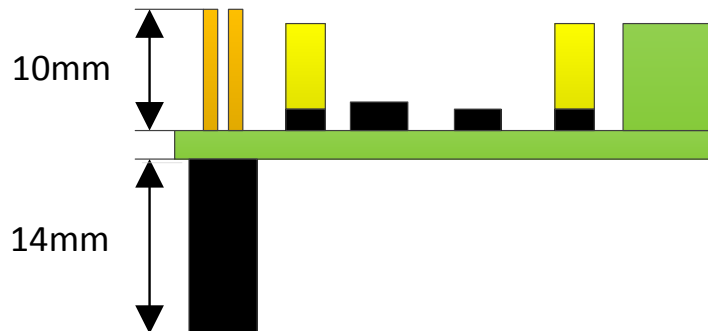
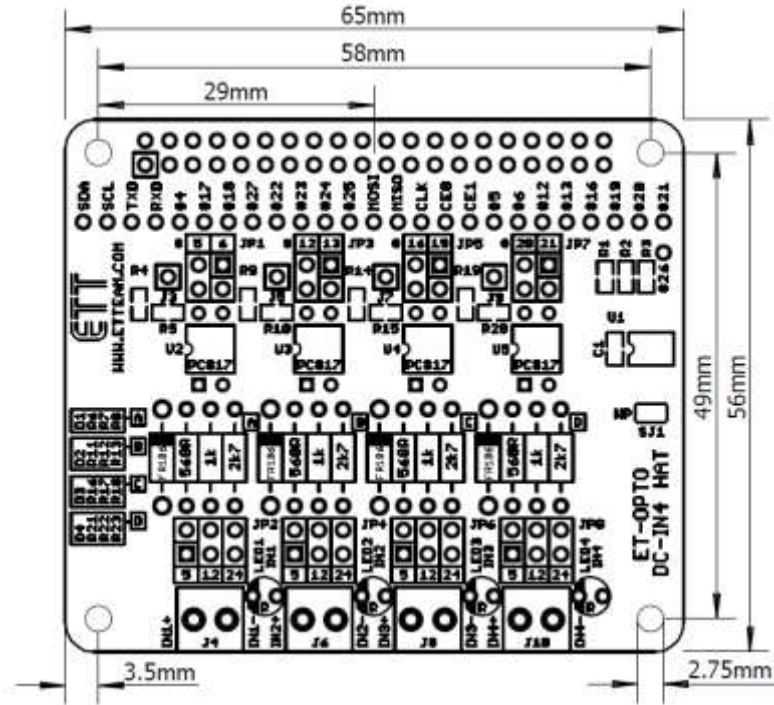
```
import RPi.GPIO as GPIO
import time
# Use GPIO references
GPIO.setmode(GPIO.BCM)
# Disable warnings
GPIO.setwarnings(False)
# Set up GPIO5,GPIO12,GPIO16,GPIO20 as input
GPIO.setup(5, GPIO.IN)
GPIO.setup(12, GPIO.IN)
GPIO.setup(16, GPIO.IN)
GPIO.setup(20, GPIO.IN)

print "Test ET-OPTO DC-IN4 HAT"
print "Press CTRL-C to exit"

try:
    while True:
        if(GPIO.input(5) == 0):
            time.sleep(0.5)
            print "IN1 Active"
        if(GPIO.input(12) == 0):
            time.sleep(0.5)
            print "IN2 Active"
        if(GPIO.input(16) == 0):
            time.sleep(0.5)
            print "IN3 Active"
        if(GPIO.input(20) == 0):
            time.sleep(0.5)
            print "IN4 Active"
```

except KeyboardInterrupt:  
 # Reset GPIO settings  
 GPIO.cleanup()

Dimensions of Board ET-OPTO DC-IN4 HAT



**Circuit of Board ET-OPTO DC-IN4 HAT**

